

Investment Analysis and Portfolio Management: FINA 221 (L3)

Hong Kong University of Science & Technology
School of Business and Management

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Instructor: Dr. Angela NG
Office: Room 2370
Email: angelang@ust.hk
Office Hours: Fri. 2:00-3:30pm
URL: <http://home.ust.hk/~angelang>

Course Assistant: Miss Mable YEUNG
Office: Room 2391
Email: mable@ust.hk
Office Hours: Mon. 1:30-3:30pm
On-line Supplement: <http://webct.ust.hk/>

Course Description

This course provides you with a broad overview of investment issues. You will learn how to trade on financial exchanges, how to allocate money across several different types of securities in a smart way, how to determine the *fair* price of a financial security, and how to determine whether your portfolio manager is doing a good job. You will also learn how to manage a portfolio that consists of fixed-income securities, and how to price, trade and speculate with derivative securities.

During the course, we will come across some of the most influential and important concepts of finance theory: the Markowitz portfolio selection model, the capital asset pricing model (CAPM), the concept of arbitrage, and the Black & Scholes option pricing formula. These concepts are so important that Nobel prizes have been awarded for their discovery!

Prerequisites

The official prerequisite for this course is the successful completion of FINA 111, Financial Management.

Some of the materials that we cover are quite technical. It is, therefore, advisable to review some basic mathematical and statistical concepts, such as net present value, interest calculations, probability theory, and regression analysis at the beginning of the course. For those who have not taken any statistics courses but are willing to work hard, there is no need to worry. I will cover the technical concepts in class for understanding the course materials.

It is also of extraordinary importance that you familiarize yourself with the software package MS EXCEL. We will be using this spreadsheet program extensively throughout the semester. In the past, many students wasted a lot of time simply because they did not know how to use EXCEL. If you have never used EXCEL, I strongly recommend that you go through the self-guided on-line EXCEL tutorial.

Textbook

Z. Bodie, A. Kane, and A.J. Marcus, 2003, *Essentials of Investments*, 5th Edition, Mc-Graw Hill Irwin.

- 📖 Some useful information can be found at the Student Center section of the textbook website:
http://highered.mcgraw-hill.com/sites/0072510773/student_view0/index.html

Reference Books

- 📖 Z. Bodie, A. Kane, and A.J. Marcus, 2002, *Investments*, Fifth Edition, Mc-Graw Hill Irwin.
- 📖 L.S.F. Young and R.C.P. Chiang (eds.), 1997, *The Hong Kong Securities Industry*, The Stock Exchange of Hong Kong Ltd.

Suggested Sources for Current Issues

Asian Wall Street Journal, Wall Street Journal, Financial Times, The Economist, Business Week, Fortune, Forbes, Far Eastern Economic Review, etc.

Grading

The grade for this course will be based on a short essay, homework assignments and two exams as follows:

☆ Short essay	5%
☆ Homework assignments	25%
☆ Midterm exam	30%
☆ Final exam	40%

Homework Assignments

- 🌀 Four homework assignments will be assigned during the semester. These exercises are meant to ensure that you understand the materials taught in class and will be very helpful for the exams.
- 🌀 You are allowed to discuss and work in groups, but you will have to turn in your *own* solutions. Anyone caught to be copying someone else's solutions will be subject to academic disciplinary actions.
- 🌀 Some homework assignments require you to extract data from Reuters. A demonstration of the Reuters database has been scheduled for February 24 (Thursday, Class 7) in the library. All students are required to attend the library session.
- 🌀 I will collect the assignments in class on due dates. Late assignments will not be accepted.
- 🌀 Due dates: Assignment 1 – March 2
Assignment 2 – March 16
Assignment 3 – April 27
Assignment 4 – May 11

Exams

- ⊗ The midterm exam is scheduled for **March 23**. The exam will cover all the topics that are discussed in class.
- ⊗ The final exam is cumulative and will cover the entire course.
- ⊗ Unless I indicate otherwise, everything discussed in class may appear in the exams.
- ⊗ The exams will consist of quantitative problems, short essays, and true/false questions.
- ⊗ You are allowed to bring in a silent battery operated calculator to the exams. Use of mobile phone as a means of calculator is prohibited.
- ⊗ I will not reschedule the exams. If you have time conflicts with other courses, especially for the midterm, you will be responsible for making appropriate arrangements.
- ⊗ I do not give makeup exams as it is impossible to make an equivalent exam without placing the student at either an advantage or disadvantage.
- ⊗ Absence from the exams will not be excused, except for serious medical reasons with doctor's letter provided within one week of the exam.

WSC Essay

You are required to participate in the “Writing and Speaking Through the Curriculum” (WSC) program, by completing a short (1-2 page) essay. An Assessment Tutor (AT) will give you a brief introduction to the program and I will provide you with the essay title(s) later on in the course.

Outside-Classroom Help

You are encouraged to make full use of the online supplement posted on WebCT (<http://webct.ust.hk>). There is a *Forum* section on WebCT. Most questions can be asked and answered in the *Forum*. It is highly likely that your question is the same question that a number of students have. The *Forum* makes it possible to share your questions and solutions to the rest of the class to enhance everyone's learning experience.

The course assistant is Mable Yeung. She will hold office hours on Monday afternoons. You are also welcome to send me emails with questions. If you choose to use email as a mean of communication, I will answer your questions in the *Forum* on WebCT, and you can reserve the right to have your identity kept confidential. If you need to talk to me in person, please send me an email or call me to schedule an office visit.

Other Important Policies/Notes

1. Name card (Bonus!)

I would like to get to know each one of you, or at least, learn your names by the end of the semester. I, therefore, need your help to turn in a name card with your recent photo. This is, of course, an optional exercise, but you will receive some bonus points in your midterm exam if you hand in one. You will get *two* extra points in your midterm score if you turn in the name card *with a picture* by February 12; but you will receive only *one* bonus point if you hand in the card *without* a picture. The blank name cards will be

distributed to you and will also be available in the Finance Department office in Room 2413 during the first week of the semester.

2. Important dates

February 12	Turn in your name card with a recent picture
February 24	Special Library Session on <i>Reuters</i>
March 2	Assignment 1 due
March 16	Assignment 2 due
March 23	Midterm exam
April 27	Assignment 3 due
May 11	Assignment 4 due

3. Classroom conduct

- (a) Both you and I will arrive at class on time. Late arrivals disrupt the class.
- (b) You must attend the section that you register for.
- (c) We will treat each other and our fellow classmates with respect.
- (d) You will not talk in class except as part of class activities/discussion.
- (e) All mobile phones and pagers must be turned off while in class. If you happen to forget to turn off your phone before class, you must do so as soon as possible or when it rings *without* answering the call.

4. Grading policy

- (a) I recognize that sometimes I or my assistant may grade a question incorrectly. If this occurs, you must notify me or the course assistant during the same week that the assignment or exam is returned back to you.
- (b) I personally am glad to regrade any assignment or exam. However, you must provide a *written* statement as to where and why there is a problem. Importantly, the entire assignment or exam will be regraded. As a result, the revised score may increase, remain unchanged or decrease.

5. Cheating

- (a) I have a *zero tolerance* policy for cheating of any kind. If you cheat, you will fail the course and may face further disciplinary actions.
- (b) Cheating occurs when you
 - ~ look at lecture notes, unauthorized materials, or other students' papers during an exam;
 - ~ obtain help from faculty or students outside your own group on homework assignments; or
 - ~ help another student to cheat.
- (c) Plagiarizing is considered as a form of cheating. Plagiarism occurs when you copy a large portion of someone's material/work without referencing it.

- Mar. 30 Class 17: Index Model (Notes06.doc)
 - BKM, Ch.6, Section 6.5
- Apr. 1 Class 18: Arbitrage Pricing Theory (Notes07.doc)
 - BKM, Ch.7, Section 7.5
- Apr. 13 Class 19: Efficient Market Hypothesis (Notes08.doc)
 - BKM, Ch.8
- Apr. 15 Class 20: Efficient Market Hypothesis, Cont'd

III. Active Investment Management

- Apr. 20 Class 21: Investment Process (Notes09.doc)
 - BKM, Ch.4
 - BKM, Ch.17
- Apr. 22 Class 22: Portfolio Performance Evaluation (Notes10.doc)
 - BKM, Ch.20, Sections 20.1-20.2

IV. Fixed Income Securities

- Apr. 27 Class 23: Fixed Income Securities (Notes11.doc)
 - BKM, Ch.9
 - 📺 Video clip: Bonds
 - 📌* *Assignment 3 due!*
- Apr. 29 Class 24: Fixed Income Securities, Cont'd
- May 4 Class 25: Managing Fixed Income Investments (Notes12.doc)
 - BKM, Ch.10, Sections 10.1-10.3

V. Derivatives

- May 6 Class 26: Options (Notes13.doc)
 - BKM, Ch.14, Sections 14.1-14.2
 - BKM, Ch.15, Sections 15.1-15.3
 - 📺 Video clip: Derivatives
- May 11 Class 27: Futures (Notes14.doc)
 - BKM, Ch. 16
 - 📌* *Assignment 4 due!*
- May 13 Class 28: Final Review